

PETROVSKIY, V.V., dotsent

Mutual relation of some factors of environment and the functions
of organism. Nek.filos.vop.med.i est. no.2:356-362 '60.
(MIRA 15:7)

1. Kafedra fizicheskogo vospitaniya i fizicheskoy kul'tury
Kiyevskogo meditsinskogo instituta imeni Bogomol'tsa.
(BIOLOGY) (PHYSICAL THERAPY)

PETROVSKIY, V.V.

Synusiae as forms of plant coexistence. Bot. zhur. 46 no.11:
1615-1626 N '61. (MIRA 15:2)

1. Botanicheskiy institut imeni V.L. Komarova AN SSSR,
Leningrad.

(Plant communities)

KOTOVA, G.N.; PETROVSKIY, V.V.; SMIRNOV, D.I.

Effect of various factors on venous tone. Fiziol.zhur. 47 no.2:
237-246 F '61. (MIRA 14:5)

1. From the Normal Physiology Chair, Bashkirian Medical Institute,
Ufa.

(VEINS)

1. The first part of the document is a list of the names of the individuals who were involved in the project. The names are listed in alphabetical order and are as follows:

- 1. Mr. [Name]
- 2. Mr. [Name]
- 3. Mr. [Name]
- 4. Mr. [Name]
- 5. Mr. [Name]
- 6. Mr. [Name]
- 7. Mr. [Name]
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- 9. Mr. [Name]
- 10. Mr. [Name]
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- 19. Mr. [Name]
- 20. Mr. [Name]
- 21. Mr. [Name]
- 22. Mr. [Name]
- 23. Mr. [Name]
- 24. Mr. [Name]
- 25. Mr. [Name]
- 26. Mr. [Name]
- 27. Mr. [Name]
- 28. Mr. [Name]
- 29. Mr. [Name]
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- 31. Mr. [Name]
- 32. Mr. [Name]
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- 48. Mr. [Name]
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- 97. Mr. [Name]
- 98. Mr. [Name]
- 99. Mr. [Name]
- 100. Mr. [Name]

PETROVSKIY, Vladimir Viktorovich; POLEZHAYEV, Ye.F., red.; ZUYEVA, N.K.,
tekhn. red.

[Role of the lymphatic vessels in blood circulation] O roli limfati-
cheskikh sosudov v krovoobrashchenii. Moskva, Gos. izd-vo med. lit-
ry Medgiz, 1960. 149 p. (MIRA 14:7)
(BLOOD—CIRCULATION) (LYMPHATICS)

PETROVSKIY, V.V., kand.tekhn.nauk; VASANOVA, L.K., inzh.; VERNER,
P.P., inzh.

Use of jalousie ash traps in the fuel bed burning of
high ash content coal. Elek.sta. 31 no.5:79-81
My '60. (MIRA 13:8)

(Ash disposal) (Furnaces)

PETROVSKIY, V.V., inzh.

Tie plugs and spike plates. P... put.khoz. ... no.t:32-33 Je
'60. (MIRA 13-7)

(Railroads--Ties)

PETROVSKIY, V.V.

Structural elements of phytocenoses. Bot. zhur. 45 no.3:
382-393 M. '60. (MIRA 13:0)

1. Botanicheskiy institut im. V.L.Komarova Akademii nauk SSSR,
Leningrad.
(Plant communities)

PETROVSKIY, V.V.

Structure of plant associations in the polygonal string bogs of
the lower Lena Valley. Bot.zhur. 44 no.10:1500-1507 0 '59.
(MIRA 13:4)

1. Botanicheskiy institut im. V.L.Komarova, Akademii nauk SSSR,
Leningrad.
(Lena Valley--Swamps)

Petrovskiy
ABRAMOV, I.V.; BAKHTOV, S.G.; GORSHKOV, D.S.; KRASNOGOROV, G.A.
PETROVSKIY, V.V.

Treating trichomoniasis in bulls [with summary in English].
Veterinariia 35 no.2:35-40 P '58. (MIRA 11:2)

1. Vsesouznyy institut eksperimental'noy veterinarii (for Abramov, Petrovskiy) 2. Moskovskaya veterinarnaya akademiya (Bakhtov).
3. Sovkhoz "Krasnaya Poyma" (for Krasnogorov).
(Trichomoniasis) (Bulls--Diseases and pests)

Retrospect, V.V.

USSR / Diseases of Farm Animals. Diseases Caused by Protozoa. R
The Jour : Ref Zhur - Biol., No. 26, 1978, No 101559
Authors : Abramov, I. V., Shapov, S. G.; Porshkov, D. S., Armanog-
rov, I. A.; Petrovskiy, V. V.
Inst : Not given
Title : The Practice of Treating Bulls Afflicted with Trichostrongylosis.
Orig Pub : Veterinariya, 1978, No 2, 39-40.
Abstract : Bulls were treated with intramuscular injections (12 injec-
tions) of bloquol with local irrigations of the preputial
sac and with iodine-anesthestin followed by rinsing and treat-
ment. These treatments were ineffective. Single intrave-
nous injections of curacil sodium (0.045 g/kg) in a 10 per-
cent dilution of a physiological solution and local appli-
cations of tar and cod-liver oil, as well as of novarsenol
combined with iodine-anesthestin also produced negative re-
sults.

Card 1/1

5(1)

AUTHOR:

Petrovskiy, Yu. V., Candidate of Technical Sciences

TITLE:

Foreign Patents (Inostrannyye patenty)

PERIODICAL:

Kislorod, 1958, Nr 6, pp 35 - 37 (USSR)

ABSTRACT:

This is a report concerning an English (Nr 760878) and two American patents (Nr 2785544 and Nr 2784561). There are 2 figures.

Card 1/1

AUTHOR: ~~REINBERG, Ya. V.,~~ ~~Technical Staff~~

TITLE: Problems in (the theory of)

PERIODICAL: Akad. Nauk, Vol. 11, No. 11, 1968, pp. 2111-2114.

ABSTRACT: This article presents in brief form the results of research in the field of exact solutions of the problem of the motion of a particle in a magnetic field. Three types of motion are described. There are 3 figures.

Card 1,1

Fuel Abstracts PETROVSKIY, V V

Steam Engines - M

3665. OPERATION OF IM. ACT PULVERIZER ON BROWN COALS.
Petrovskii, V.V. Zaets, V.M. and Shalaev, N.B. (Za. Ekon. Topliva (Fuel
Econ.) June 1952, 25-28 . An illustrated description and test figures
are given for a plant used with steam or hot water boilers consuming
1.5 to 2 tons of brown coal per hour. (L)

ZAYETS, Vladimir Nikolayevich; PETROVSKIY, Vasilii Vladimirovich; RYSAKOV, Nikolay Fedorovich; DEREVIANNYKH, B.P., redaktor; LUCHKO, Yu.V., redaktor; KOVALENKO, M.I., tekhnicheskiy redaktor.

[Boiler equipment] Kotel'nye ustanovki. Sverdlovsk, Gos.nauchno-tekhn.isd-vo lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe otd-nie, 1955. 296 p. (MLRA 9:6)

(Boilers)

~~PEROVSKIY~~ H.K. aspirant.

Bacteriological diagnosis of trichomoniasis in cattle. Veterinariia
34 no.5:81-83 My '57. (MLA 10:6)

1. Vsesoyuznyy institut eksperimental'noy veterinarii.
(Trichomonas) (Bacteriology--Culture media)
(Cattle--Diseases and pests)

PETFOVSKIY, V. V.

Kochegar parovogo kotla. Sverdlovsk, Metallurgizdat, 1942. 118,(2) p. illus.
(V pomoshch'rabochim massovykh professii)

Bibliography: p. 110.

Steam-boiler stoker

DLC: TJ289.P4

SC: Manufacturing and Mechanical Engineering in the Soviet Union, Library of
Congress, 1953.

PETROVSKIY, Ye.T.

Improving the design of wooden core boxes. Lit. proizv. no. 25
Je '63. (MIRA 16 73)

(Coremaking)

PETROVSKIY, V.S.; CHIRKOV, B.V.

Meter for briquet production. Torf. prom. 30 no.5:30-31 My '53.
(MLR 1:1)

1. Orekhovo-Zayevskiy torfobriketnyy zavod. (Briquets (Fuel))
(Counting devices)

~~PETROVSKIY, Ye. Ye.~~, inzh.

Checking to prevent crumbling of peat briquettes. Torf.prom. 35
no.2:23-24 '58. (MIRA 11:5)

1. Orekhovskiy torfobriketnyy zavod.
(Peat)

PETROVSKIY, Ye.Ye..

Bending tests of peat briquets. Torf.prom.32 no.7:22-24 '55.
(MLRA 9:1)

1.Orekhovskiy torfobriketnyy zavod.
(Briquets (Fuel)--Testing) (Peat--Testing)

PETROVSKIY, Yu.

River of the electric dragon. Znan.sila 22 no.10:24-27 0 '57.

(MIRA 10:11)

(Amur River)

PETROVSKIY, Yu. (UAZAV)

Simple narrow-band filter. Radio no. 5:64 My '56. (MIRA 9:7)
(Radio filters)

PETROVSKIY, Yu.

On the bottom of oceans. Znan.sila 31 no.1:29-30 Ja '56.
(Ocean bottom) (MLRA 9:4)

PETROVSKIY, Yu

The ninth planet. Znan. sila 32 no.3:33 Mr '57.
(Pluto (Planet))

(MLRA 10:6)

PETROVSKIY, Yu.

On the verge of irreality. Znan.sila 31 no.7:17-24 J1 '56.
(Machinery, Automatic)(Automatic control) (MLRA 9:9)

PETROVSKIY, Yu.

Taming the dragon. Znan.sila Vol.31, no.6:7-10 Je '56. (MLRA 9:8)
(Yellow River--Regulation)

4-5-2/17

SUBJECT: USA and USSR/Electronics

AUTHOR: Petrovskiy, Yu.

TITLE: New "Professions" for Electronic Machines (Novyye "professii" elektronnykh mashin)

PERIODICAL: Znaniya - Sila, May 1957, #5, pp 6-10 (USSR)

ABSTRACT: The article deals in a very general manner with industrial and military application of electronic devices, such as radar, electronic computers and various other automatic electronic control instruments. Inventions made in the USA, Great Britain and France are described, e.g. US radar system, automatic pilots, automatic operation of sulfuric acid and dry ice plants, automatic production of napalm, etc. One chapter deals with a "postal computing machine station in Prague" and in another chapter the application of electronic computing machines in the USSR sugar industry is mentioned. Further, an electronic device of the Bell Telephone Company is mentioned, the "Audrey", which transduces spoken language into electrical impulses to be fed into computing machines. The last chapter deals with an electronic devices to be used for composing music which was designed by a French company.

Card 1/2

PETROVSKIY, Yu.

~~New "professions" for electronic machines. Znan. sila 32 no.5:~~
6-10 My '57.

(MIRA 10:9)

(Electronic control)

(Electronic calculating machines)

(Electronic apparatus and appliances)

ZENKOVICH, V., prof. doktor geogr. nauk; LAGUNOVA, I.; PETROVSKIY, Yu.
zhurnalist; VERD'YE, Zhan; PETROV, S., inzh.; NAUMOV, S., nauchnyy
sotrudnik; IOFFE, V., inzh.; DROZDOV, V., inzh.

People of new specialties. Znan. sila 32 no.11:32-34 N '57.

(MLRA 10:11)

1. Direktor Instituta rentgenologii i radiologii Ministerstva zdравo-
okhraneniya (for Lagunova)

(Science)

PETROVSKIY, Yu.

First artificial language. Znan.-sila 38 no.2:18-19 P '63.
(MIRA 16:3)

(Languages, Artificial)

PETROVSKIY, Yu.

In pursuit of light. Znan.sila 33 no.12:18 D '58. (MIRA 11:12)
(Particle accelerators)

AUTHOR: Petrovskiy, Yu.

4-10-13/47

TITLE: The River of the Electric Dragon (Reka elektricheskogo drakona)

PERIODICAL: Znaniye - Sila, 1957, # 10, pp 24 - 27 (U.S.R.)

ABSTRACT: An agreement was concluded between the Academy of Sciences of the Soviet Union and the Chinese People's Republic in 1956 relating to the development of the Amur River Basin. In summer of 1956, geographers, geologists, botanists, zoologists, soil experts, geomorphologists, hydrologists, power experts and transport specialists, proceeded with the investigation of the region. These researches were conducted through the winter. As electricity is the main factor of industry, the expeditions tried first to investigate the power resources of the Amur River Basin. A group of specialists led by S. Klopov, Doctor of Technical Sciences and Professor Feng Chun-Yun, covered a distance over 4,000 km up the Amur and Argun', choosing sites for the construction of water reservoirs, dams, and hydro-electric plants. In the Amur border region, five sites, extremely suitable for the construction of hydro-electric plants, were found. Plants

Card 1/4

The River of the Electric Dragon

4-10-33-47

of about one million kilowatts will be constructed with dams of 35 - 70 meters. In the Argun' region, 18 sites were found. Similar results were obtained in the Ussur, Muren and Suyfen river areas. Academician V. Nemchinov, considers that hydro-electric plants must first be constructed near Zey and Dzhailinda. These towns are only 400 km from the South-Yakutsk iron ore and coal mines and 500 km from the nonferrous metal and iron layers in the Chitinsk district. The industrial exploitation of these basins is covered by the sixth Five-Year-Plan directives. The great Siberian route (put') will be electrified from Vladivostok to Irkutsk. These two electric power plants will supply the whole north-eastern region of China - i.e. the An'shyan metallurgy, the Mukden machine building and textile industry, the Fushun coal industry, the Kharbin and Tsitsikar power enterprises. The transmission of d.c. current would also ensure the supply of Peking. The abundance of cheap energy will cause a radical reorganization in industry; the replacement of the usual Martin and converter steel by high quality electric steel, and the organization of a new chemical industry on the basis of energy, which cannot now be realized through the expensive electro-energy of thermal

Card 2/4

4-10-13/47

The River of the Electric Dragon

plants. All these electric plants will be united into a general, national network.

Geologists, mineralogists and other scientists investigated soil resources. They discovered ores with an iron content of over 60%, besides coal, limestone, fluorspar, asbestos, molybdenum and manganese. Copper, magnesium, tin, zinc, and lead were already discovered. Raw material for the chemical industry were also found, as well as timber, cement and marble. The existence of petroleum layers is very probable. The fertility of the soil ensures rich harvests without fertilizing, while irrigation will create proper conditions for rice cultivation. There are also excellent conditions for cattle breeding.

Navigation on the Amur is rather difficult because of rapids, and because to the north the river spreads over a large plain, dividing into many arms, which flow into the Amur Firth, and then into the Okhotsk Sea. Projects have been elaborated to dredge channels, and to direct the river towards another outlet. There are three projects. The first of them provides for the digging of 15 kms of canals between a number of lakes situated between the Amur and the Patar Sound to connect the river with the sea. The second project is to

Card 3/4

. The River of the Electric Dragon

4-10-47/47

straighten the winding of the river near Khabarovsk. A Chinese scientist worked out the third project which is to use the Sungari river, one of the Amur affluents, as the main entrance channel. This gives access to important towns such as Kharbin, Girin, Mukden. This, however, is only one part of the project. It appears possible to cut a straight water route between the Yellow Sea and the Amur. The connection of the Amur and the Nonni river by a channel would open a straight route to the south. This project would create a direct connection between the upper and central Amur and the most important Chinese industrial centers. As a result of those three projects, the Amur would flow into three seas - in the Okhotsk, the Japan and the Yellow Sea.

There are 3 sketches and 1 map.

AVAILABLE: Library of Congress

Card 4/4

PETROVSKIY, Yu.A.; SERDYUK, Ye.N.; SKAKUN, N.P.; TURKO, I.P.

Liver function in experimental vitamin B₁ deficiency. Vopr.
fisiol. no.8:123-127 '54. (MIRA 14:1)

1. L'vovskiy meditsinskiy institut.
(VITAMIN B₁ DEFICIENCY, experimental,
liver funct. tests)
(LIVER FUNCTION TESTS, in various diseases,
exper. vitamin B₁ defic.)

RETROVSKIY, Yu.; SHCHWIN, N.A.

Equipment and mechanisms for manufacturing facing tile by casting. Stroi. mat., det. i izd. no. 7:84.61. 1985
(NIPA 1985)

1. Fizicheskiy eksperimental'no-issledovatel'skiy kurs. Osnovnye ustroystva nauchno-issledovatel'skogo instituta stroitel'nykh materialov i izdeliy, Kiev.

PETROVSKIY, Yu.I., inzh.; SHLEVIN, D.N., inzh.

Production line of mosaic facing tiles with a carpet effect.
Ser. i ker. 21 no.10:19-23 0 '64.

(MIRA 1971)

1. Kiyevskiy eksperimental'no-issledovatel'skiy zavod
issledovatel'skogo instituta stroitel'nykh materialov.

L 32656-66 EWT(1)/FCC GW

ACC NR: AT6017320

SOURCE CODE: UR/2546/65/000/143/0069/0090

AUTHOR: Petrovskiy, Yu. S.

ORG: none*

TITLE: Analysis by means of streamlines of maps of the tropical zone

SOURCE: ⁺Moscow. Tsentral'nyy institut prognozov. Trudy, no. 143, 1965. Stroyeniye troposfery i stratosfery i vzaimosvyaz' tsirkulyatsii Severnogo i Yuzhnogo Polushariy (Structure of the troposphere and stratosphere and interrelation of the circulations of the Northern and Southern Hemispheres). 69-90

TOPIC TAGS: weather forecasting, streamline, weather map

ABSTRACT: A study was made of the relationship between winds and the pressure field in the tropics. Isobaric analysis, difficult in the tropics, is unreliable for predicting circulation. Analysis of the few surface maps for the tropical zone by means of streamline construction indicates that this method has possibilities. It is not yet advisable to reject isobaric analysis, however, because this aids in drawing streamlines. To be of use, the analyses of the pressure field must be made more carefully, giving proper consideration to small pressure gradients, the daily behavior of pressure, the effect of local conditions, and the possibility of anti-tryptic wind. Analysis of surface maps for the tropical zone by constructing streamlines, with concomitant isobaric analysis, requires additional time, and for this

Card 1/2

L 32656-66

ACC NR: AT6017320

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reason its use in everyday work in the equatorial zone is apparently too laborious. It seems advisable now to restrict the work to the most interesting localities of a particular region, giving special attention to inertial wind (when the wind moves counter to the gradient or is inclined in a direction not proper for the hemisphere), to well-defined antitryptic wind, and also to tropical cyclones. Analysis of upper-air maps by construction of streamlines has no advantage over isobaric analysis because of the present scarcity of data on wind and because construction of streamlines rests on isobaric contours. As in other analyses, the effect of Eulerian winds should be considered. Orig. art. has: 7 figures and 3 tables.

SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 011/ OTH REF: 004

Card 2/2

135

PETROVSKIY, Yu.S.

Air currents over the surface and air exchange between
hemispheres in 1963. Meteor. i gidrol. no.1: 2-35, 1964.

(MIRA 1964)

1. TSentralnyy Institut meteorov. Submitted April 21, 1965.

ACC NR: AP7001154 (A,N) SOURCE CODE: UR/0439/66/045/006/0830/0835

AUTHOR: Arzamasov, I. T.; Merkusheva, I. V.; Petrovskiy, Yu. T.;
Dyl'ko, N. I.

ORG: Division of Zoology and Parasitology, Academy of Sciences, Belorussian SSR, Minsk (Otdel zoologii i parazitologii Akademii nauk Belorusskoy SSR)

TITLE: Parasites of squirrels in Belorussia

SOURCE: Zoologicheskii zhurnal, v. 45, no. 6, 1966, 830-835

TOPIC TAGS: ~~zoology~~, parasitology, ^{ANIMAL} parasite, arthropod, helminth, protozoa, rickettsia

ABSTRACT: Data on parasites of the grey squirrel were collected in the Belorussian SSR between 1963 and 1964. The specificity, distribution, and dependence of 46 parasite species on the living conditions of the host were analyzed. In all, 39 arthropod, 3 helminth, 3 protozoan, and 1 rickettsial species were found in arboreal squirrels, while in ground squirrels and burrowing squirrels 14 arthropod, 6 helminth, 1 rickettsial, and 1 microbial parasite species were found.

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 016/ [LP]
[WA-50; CBE No. 14]
OTH REF: 002

Card 1/1

UDC: 591.69-932.22(476)

PETROVSKIY, Yu.T. [Platrouski, IU.T.]

Distribution of the suslik *Citellus suslica* GÜld. in White
Russia and the history of the establishment of its rang. Vestsi
AN BSSR Ser. biial. nav. no.1:119-122 '58. (MIRA 11:5)
(White Russia--Susliks)

PETROVSKIY, Yu.T.

Studying the diurnal activity cycle in the suslik *Citellus
suslicus* Culd. by the use of actograph. Zool.zhur. 38 no.9:
1413-1418 S '59. (MIRA 13:1)

1. Kafedra zoologii Belorusskogo gosudarstvennogo universiteta
(Minsk).

(Susliks)

PETROVSKIY, Yu.T.

Ecological peculiarities of the suslik *Citellus suslicus* Gild in
White Russia. Zool. zhur. 40 no.5:736-748 '61. (MIRA 14:5)

1. Department of Zoology, State University of Byelorussia, Minsk.
(White Russia—Susliks)

PETROVSKIY, Yu. V.

USSR, Chemistry - Chemical engineering.

FD-378

Card 1/1 Pub.50 - 11/24

Author : Fastovskiy, V. G., Prof, Dr Tech Sci; Petrovskiy, Yu. V.

Title : Study of columns containing a multi-layer net filling

Periodical : Khim. prom., No 6, 357-364 (37-44), Sep 1954

Abstract : Investigated experimentally the performance with respect to mass transfer and heat transfer of columns containing a net filling consisting of 1-7 layers. Compared the performance data with those obtained on columns containing other types of fillings (ceramic rings, saddle-shaped elements). Found that by using a five-layer net filling an optimum reduction of the dimensions of the column is obtained. Because of the superior performance obtained with this type of filling, recommend its use in industrial distillation and absorption columns. Twelve references, 5 USSR, all since 1940. Six figures, 9 graphs, 6 tables.

Institution :

Submitted :

PETROVSKIY, YU.V.

The liquid-vapor equilibrium in the argon-oxygen system. V. G. Pastorskiy and Yu. V. Petrovskiy (V. I. Lenin Electrotech. Inst., Moscow). *Zhur. Fiz. Khim.* 20: 1811-17 (1958).—The equil. in the A-O₂ system was studied at a const. total pressure because of its importance in the industrial sepn. of the 2 gases. The specially designed app. and its use are described in detail. The system was investigated at 1.2, 1.5, 1.7, and 2.0 atm. total pressure, and th. equil. compn. of the gas and liquid phases are given for 6 proportions of the components. The equil. gas compn. was calcd. from the experimentally detd. relation between the b.p. of the liquid and its compn., and the exptl. results are compared with the calcd. results. Their good agreement permits the application of the van Laar equation with the coeffs. calcd. for 4 of the pressures. A diagram of liquid compn.-equil. compn. of the vapor was constructed from the data for use in designing industrial sepn. app. W. M. Sternberg

1. Elektrotekhnicheskiy institut imeni V. I. Lenina, Moskva.

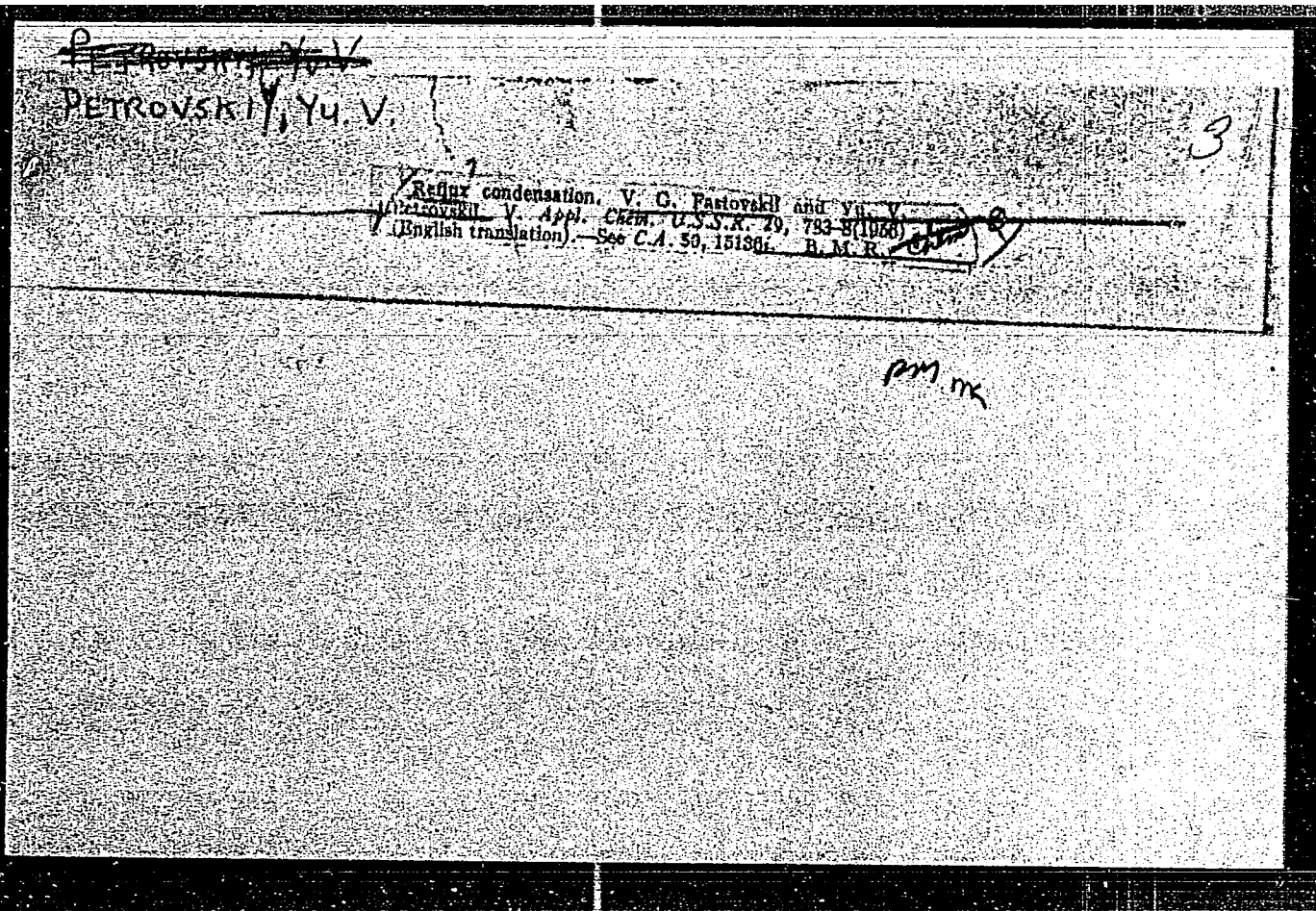
PASTOVSKIY, V.G., doktor tekhnicheskikh nauk, professor; PETROVSKIY, Yu.V.

Investigating rectification in a wetted-wall column. Khim.prom.no.4:
230-234 Je '56. (MLRA 9:10)

1.Vsesoyuznyy elektrotekhnicheskiy institut.
(Distillation apparatus)

PASTOVSKIY, V.G.; PETROVSKIY, Yu.V.

Experimental study of counterflow condensation. Zhur.prikl.khim.
29 no.5:723-730 My '56. (MLRA 9:8)
(Distillation, Fractional)



PETROVSKIY, Yu. V.

USSR/ Chemistry - Physical chemistry

Card 1/1 Pub. 147 - 10/35

Authors : Pastovskiy, V. G., and Petrovskiy, Yu. V.

Title : Investigation of liquid-vapor equilibrium in an argon-nitrogen system.
Part 2

Periodical : Zhur. fiz. khim. 30/1, 76-78, Jan 1956

Abstract : The liquid-vapor phase equilibrium in an argon-nitrogen system was investigated at pressures of 912, 1520, 2280 and 3040 mm of mercury column (1,2; 2.0; 3.0 and 4.0 atm. abs.). Data are given on the equilibrium compositions of liquid and vapor and the corresponding temperatures for five different mixtures. The components of the equilibrium vapor were computed on the basis of the boiling point/liquid component relation. The application of the van Laar equation with coefficients the values of which were determined for four investigated pressure, is discussed. Six references: 4 USSR, 1 Germ. and 1 Eng. (1916-1955). Tables; graphs.

Institution : Electrical Engineering Inst. in V. I. Lenin, Moscow

Submitted : May 3, 1955

PETROVSKIY, Yu. V.

B-8

USSR/ Physical Chemistry - Thermodynamics. Thermochemistry. Equilibrium.
Physicochemical analysis Phase transitions

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11157

Author : Fastovskiy V.G. Petrovskiy Yu.V.

Title : Investigation of Liquid-Vapor Equilibrium in the System O₂-Kr.

Orig Pub : Zh fiz khimii, 1956, 30, No 3, 589-592 (English summary)

Abstract : By means of the previously described (RZhKhim, 1956, 42596) experimental unit and operating procedure data have been secured concerning the equilibrium composition of liquid and vapor, at different temperatures, in the case of five different O₂-Kr mixtures. In the coordinates $\ln p$ (p -- absolute pressure in mm Hg), $1/T$, the experimental points for each mixture fit straight lines located in intermediate positions between lines of pure components. From these graphs were plotted $T - \varphi(x)$ curves, where x (respectively, y) -- mole % O₂ in liquid (in vapor), at absolute pressures 2128, 2230, 3700 and 5170 mm Hg (0.5, 2.0, 4.0 and 6.0 kg/cm², excess). On the basis of calculated equilibrium compositions of vapor, $T - \varphi(y)$ curves were plotted for the same pressures. Satisfactory agreement between calculated and experimental values shows that the system under study,

Card 1/2

PETROVSKIY, Yu. V., Cand of Tech Sci — (diss) "The study of certain physicochemical and engineering problems applicable to the technology of the production of argon and krypton." Moscow, 1957, 15 pp (Moscow Institute of Chemical Machine Building), 110 copies (KL, 29-57,91)

107-1-13/23
AUTHORS: Trokhin, A.A., Engineer.
Petrovskiy, Yu.V., Candidate of Technical Sciences

TITLE: A Survey of Periodicals (Po stranitsam zhurnalov)

PERIODICAL: Kislorod, 1957, Nr 6, pp. 38-38 (USSR)
Received: April 7, 1958

ABSTRACT: Four abstracts from foreign newspapers are mentioned dealing with the following subjects: An oxygen turbocompressor (VDI Periodical, 1955, VII, 97, No 19/20, p. 614); New heat insulating material (Penouretan) (Barringer, Refrig. Eng. 1957, 4, pp. 53-6; 108; 111, 112, USA); On the application of oxygen in blast furnaces (James, Compressed Air Mag. 1957, 6, pp. 170-4), and on pumps for liquid oxygen (Missiles & Rockets, 1956, 3, pp. 35-54). There are 1 figure and 4 non-Slavic references.

AVAILABLE: Library of Congress

Card 1/1

Petrovskiy, Yu. V.

AUTHORS: Fastovskiy, V. G., Petrovskiy, Yu. V.

64-8-7/19

TITLE: Rectification Method for the Production of the Pure Krypton (Rektifikatsionnyy sposob polucheniya chistogo kriptona).

PERIODICAL: Khimicheskaya Promyshlennost', 1957, Nr 8, pp. 28-32 (USSR)

ABSTRACT: In the investigation of the conditions under which the solid phase in the oxygen-krypton-system is formed it was found that no precipitation of the solid phase occurs at 1,5-2 atmospheric pressure. This admits the carrying out of the rectification of a rich concentrate at such a pressure and to obtain here a chemically pure krypton. Here a periodical rectification of a rich krypton concentrate (10% krypton) was carried out in the mounting-column at 2 atmospheric pressure and technically pure krypton (98-99% krypton) was obtained with 95-96% output. A scheme for an industrial plant for the rectification of a rich krypton concentrate was worked out here. This plant contains the prepurification of the concentrate from the hydrocarbon admixtures, drying and purification of the concentrate from CO₂, rectification with a production of the technically pure krypton as well

Card 1/2

Rectification Method for the Production of the Pure
Krypton

64-8-7/19

as a subsequent purification of the same from the oxygen- and hydrocarbon admixtures in fumaces in order to obtain the pure krypton. A rectification plant for the production of a technically pure krypton was planned and built; as well as a device for the removal of oxygen and hydrocarbon admixtures and for the production of pure krypton. The plant and the device are used in a oxygen-krypton-great block which works 20,000 m³/hour. There are 6 figures, 1 table, and 10 references, 4 of which are Slavic.

AVAILABLE: Library of Congress

Card 2/2

PASTOVSKIY, V.G.; PETROVSKIY, Yu.V.

Obtaining pure krypton by distillation. Khim. prom. so. 11:426-480
D '57. (MIRA 11:2)

(Krypton) (Distillation apparatus)

PETROVSKIY, Yu.V., inventor.

~~Small-size oxygen gasifiers.~~ Kislород 10 no.2:43 '57. (MLA 10:9)
(Oxygen) (Gas producers)

PETROVSKIY, Yu.V., inzh.

Foreign patents. Kislorod 10 no.3:36-38 '67.
(Patents) (Chemistry, Technical)

(MLRA 10:11)

PETROVSKIY, Yu.V., kand. tekhn. nauk.

Storing and transporting liquefied gases (from "Missiles and
Rockets." 1 no.3 1956). Kislород 10 no.5:43 '57. (MIRA 11:4)
(Gases, Compressed)

PETROVSKIY, Yu.V., kand. tekhn. nauk.

Transferring heat to liquid nitrogen (from "Paper Amer. Soc. Mech
Engrs.," no.SA-4 1956). Kislород 10 no.5:43 '57. (MIRA 11:4)
(Heat--Transmission) (Nitrogen)

PETROVSKIY, Yu.V., kand.tekhn.nauk

Concrete reservoir for liquefied gases (U.S. patent No. 2777295).
Kislorod 10 no.6:36 '57. (MIRA 11:4)

(Gases, Compressed--Storage)

(Prestressed concrete construction)

PETROVSKIY, Yu. V., kand. tekhn. nauk

Pumps for liquid oxygen (from "Missiles and Rockets," 1 no. 3 1956).
Kislород 10 no. 6:38 '57. (MIRA 11:4)
(Pumping machinery)
(Oxygen)

PETROVSKIY, YU. V.

PASTOVSEIY, V.G.; PETROVSKIY, Yu.V.

Study of the vapor-liquid equilibrium in the system oxygen-argon-nitrogen. Zhur.fiz.khim. 31 no.4:836-841 Ap '57. (VIPA 10:7)

1. Vsesoyuznyy elektrotekhnicheskiy institut im. V.I.Lenina, Moskva.
(Systems (Chemistry)) (Oxygen) (Argon) (Nitrogen)

Petrovskiy, Yu. V.

AUTHORS:

Pastovskiy, V. G., Petrovskiy, Yu. V. 76-10-22/34

TITLE:

A Study of the Vapor-Liquid Equilibrium in the System Nitrogen-Methane (Issledovaniye ravnovesiya zhidkosti i para v sisteme azot-metan).

PERIODICAL:

Zhurnal Fizicheskoy Khimii, 1957, Vol. 31, Nr 10, pp. 2317-2321 (USSR)

ABSTRACT:

The phase equilibrium of liquid and vapor in the nitrogen-methane system at absolute pressures of 2, 5, 8, 11 and 16 kg/cm² was investigated. The data concerning the equilibrium compositions of liquid and vapor and the corresponding temperatures for seven different mixtures were obtained. On the strength of the boiling temperature on the liquid composition $T-\varphi(x)$ found by experimental way the compositions of the equilibrium vapor computed which were compared to the experimental data. The fact that the computed data agree well with the experimental data admits the use of the van Laar equation with the coefficients which values are given for five pressures investigated. Data are given which facilitate the construction of the

CARD 1/2

Петровский В. В.

PHASE I BOOK EXPLOITATION

1170

Vsesoyuznyy elektrotekhnicheskiy institut

Nizkiye temperatury i redkiye gazy (Low Temperatures and Rare Gases)
Moscow, Gosenergoizdat, 1958. 286 p. (Series: Its: Trudy, vyp. 61)
2,260 copies printed.

Ed. (title page): Fastovskiy, V.G.; Doctor of Technical Sciences; Ed. (inside book): Zhigarev, A.A.; Tech. Ed.: Larionov, G. Ye. Editorial Board of Series: Andrianov, K.A., Biryukov, V.G. (chief ed.), Butkevich, G.V. (deputy chief ed.); Granovskiy, V.L., Kalitvyanskiy, V.I., Timofeyev, P.V., Fastovskiy, V.G., Shemayev, A.M.

PURPOSE: This book is intended for scientists and technicians concerned with storing, handling, obtaining and utilizing atmospheric gases (especially oxygen and rare gases).

COVERAGE: The volume is one of a series published by the All-Union Electrical Engineering Institute imeni V. I. Lenin. The Collection includes main projects carried out during the period 1947-1955 by scientists and technicians of the Low-temperature Laboratory headed by Doctor of Technical Sciences, Professor

Card 1/5

1170

Low Temperatures and Rare Gases

- Fastovskiy, V.G. and Rovinskiy, A.Ye. The Adsorption Method of Separating Neon-Helium Mixture 67
- Fastovskiy, V.G. and Petrovskiy, Yu.V. Investigating Phase Equilibrium of Liquified Gases 99
- Fastovskiy, V.G. and Petrovskiy, Yu.V. Investigating Liquid and Vapor Equilibrium in the System Oxygen-Argon-Nitrogen 116
- Fastovskiy, V.G. and Petrovskiy, Yu.V. The Influence of Argon on the Air Rectification Process 123
- Fastovskiy, V.G. and Petrovskiy, Yu.V. Several Questions on the Technical Preparation of Argon 139
- Fastovskiy, V.G. and Petrovskiy, Yu.V. Research on the Industrial Preparation of Krypton 154

Card 3/5

Low Temperatures and Rare Gases

1170

Fastovskiy, V.G. and Petrovskiy, Yu.V. The Rectification Method of obtaining Pure Krypton	162
Fastovskiy, V.G., Rovinskiy, A.Ye., and Petrovskiy, Yu.V. Obtaining Pure Xenon	174
Rovinskiy, A.Ye. and Vlasova, A.A., Senior Technician, Engineer. Removal of Oxygen From Inert Gases	185
Fastovskiy, V.G. and Rovinskiy, A.Ye. Gas Analysis	195
Petrovskiy, Yu.V. Small-scale Apparatus for Preparing Liquid Air	220
Rovinskiy, A.Ye. and Vlasova, A.A. The Production of Ozone by Corona Discharge	232
Fastovskiy, V.G. and Rovinskiy, A.Ye. Intensification of the Cooling of High-voltage Mercury Arc Rectifiers	242

Card 4/5

67-1-15/20

AUTHOR: Petrovskiy, Yu. V., Candidate of Technical Sciences

TITLE: Foreign Patents (Inostrannyye patenty)

PERIODICAL: Kislород, 1957, Nr 1, pp. 41 - 42 (USSR)

ABSTRACT: This article gives a description of the following patents:
1) An American patent for a plant for producing liquid oxygen, liquid nitrogen and raw argon. (Nr 2 762 208).
2) A French patent of a portable device for producing liquid oxygen. (Nr 1 126 478). There are 2 figures.

AVAILABLE: Library of Congress

1. Liquid oxygen 2. Patents-USA 3. Patents-France

Card 1/1

105-58-3-7/31

AUTHORS: Fastovskiy, V. G. , Doctor of Technical Sciences, Professor,
Petrovskiy, Yu. V. , Candidate of Technical Sciences

TITLE: On the Possibilities of Intensifying the Cooling of Turbo-
generators (O vozmozhnosti intensivatsii okhlazhdeniya
turbogeneratorov)

PERIODICAL: Elektrichestvo, 1980, Nr 3, pp. 32 - 35 (USSR)

ABSTRACT: First a survey is given on the possible ways of intensify-
ing the cooling of turbogenerators, then the problem of
the usefulness of an artificial hydrogen cooling (Ref 4)
is investigated. Of the two possible aims pursued by such
a cooling that one is more interesting which offers the
possibility of increasing its output in obtaining the mea-
surements of the effective parts. This aim is investigated
here also in application to a 200 MW turbogenerator. The
hydrogen cooling types possible for a cooling to 0°C are
dealt with here: the application of a compression (vapor)
cooling plant, of an absorption cooling device, and of a
turbodetander (?). It is shown that from the standpoint of

Card 1/2

105-58-3-7/31

On the Possibilities of Intensifying the Cooling of Turbogenerators

economy of the output adjusted, the absorption cooling plant does not offer any advantages in comparison to the compression plant. A certain advantage of the former is the lacking of a machine-outfit, the dimensions of the absorption cooling plant are, however, considerably greater. The temperature drop can be obtained by the expansion of the gaseous hydrogen in the turbodetander after previous compression. Comprisingly it is said that a liquid cooling is the most favorable one, i.e. in the first place the cooling of the stator winding and then of the rotor. An artificial hydrogen cooling with the aid of cooling plants requires, however, great capital investments and operation expenditures and can be expedient only in individual cases. There are 6 references, 3 of which are Soviet.

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy institut imeni Lenina
(All-Union Institute of Electrical Engineering imeni Lenin)
SUBMITTED: April 1, 1957

Card 2/2

AUTHOR: Petrovskiy, Yu. V., Candidate of Technical Sciences SC7/57-58-a-10

TITLE: Foreign Patents (Inostrannyye patenty)

PERIODICAL: Kislород, 1958. Nr 4, pp. 38-39 (USSR)

ABSTRACT: In this article two American patents are described: One of them concerns a container for liquid oxygen, which is manufactured by the firm of Strong & Bundi, the other concerns a device for the production of technical oxygen, which is provided with the recuperator-heat-exchangers. This device is being manufactured by the firm of G. T. Skaperdas. There are 2 figures.

Card 1/1

1. Oxygen--Production 2. Oxygen (Liquid)--Production
3. Industrial equipment--USA 4. Patents--USA

PETROVSKIY, Yu.V., kand.tekhn.nauk

Oxygen pressurizing system without pumps. Kislород 11 no.5:67-68
' 68. (MIRA 11:12)

(United States--Oxygen)

PETROVSKIY, Yu.V., kand.tekhn.nauk

Improvements in the revaporization of liquid oxygen. Kislород 11
no.5:58-59 ' 58. (MIRA 11:12)
(Great Britain--Oxygen)

PETROVSKIY, Yu.V., kand.tekhn.nauk

Low-temperature expansion turbines (from "Brit.Chem.Engn." no.3, 1957).

Kislod 11 no.5:60 ' 58.

(MIRA 11:12)

(Refrigeration and refrigerating machinery)

PETROVSKIY, Yu.V., kand.tekhn.nauk

Liquid nitrogen plunger pump operating at 700 atm. (from "Industr. and
Engng. Chem.," No.12, 1957). Kislod 11 no.5:60-61 ' 58.
(MIRA 11:12)

(Nitrogen) (Pumping machinery)

PETROVSKIY, Yu.V., kand.tekhn.nauk

Air separation apparatus. Kislород 11 no.6:35 '58. (MIRA 12:3)
(Oxygen) (Chemical engineering--Equipment and supplies)

PETROVSKIY, Yu. V., kand. tekhn. nauk

Submersible pump for liquid oxygen. Kislород 11 no. 6:36 '58.
(MIRA 12:3)

(Refrigeration and refrigerating machinery)

PETROVSKIY, Yu.V., kand.tekhn.nauk

Liquefied gas valve. Kislorod 11 no.6:36-37 '58. (MIRA 12:3)
(Valves)

Dist: 4El,j

Preparation of pure xenon. V. O. Pastovskii, A. I. Rovinskii, and Yu. V. Polynskii. *Zhur. Priklad. Khim.* 31, 6-12 (1958). Rectification and adsorption of Xe from enriched mixts. of Kr-Xe were investigated. The temp. of a jacketed column filled with Cu rings was controlled by the pressure of liquid CH₄ in the jacket. During the 1st 20-30 min. rectification was at 100% reflux. Then Kr was distd. at a rate of 0.3-0.4 l./min. With a small batch of 33 l. the 1st 2 fractions, 25 l., did not contain Xe. In the 3rd and 4th fractions (6.2 and 1.3 l., resp.) the Xe content was 4.3 and 9.6%. The low yield, 87%, was attributed to the retention of Xe by the Cu rings, for in a 68-l. batch contg. 6.5% Xe the 1st 3 fractions, 52 l., did not contain Xe, whereas the 4th and 5th fractions, 11.8 and 4.2 l., contained 2.8 and 98.5% Xe, yield 93%. Activated C (AG-2) adsorbed, in a dynamic system at 233-213°K., 80-100 cc./g. Isothermal desorption at 233° with the pressure reduced from 760 to 50-60 mm. Hg gave a gas contg. 70-80% Xe. Fractional desorption at progressively increasing temps. gave a gas contg. 60-70% Xe but the yield was reduced from 80 to 70%. The yield was a function of the initial pressure and the gas contg. of the feed. The yield of 0.20 from 20 to 50% of Xe was observed and was independent of γ .

10(4)

AUTHORS:

Fastovskiy, V. G., Petrovskiy, Yu. V., SOV/64-59-2-15/23
Akchurin, R. A.

TITLE:

Investigations of the Resistance and Efficiency of a
Contact-plate Utilizing the Kinetic Energy of the Light
Phase (Issledovaniye soprotivleniya i effektivnosti
deystviya kontaktnoy tarelki, ispol'zuyushchey
kineticheskuyu energiyu legkoy fazy)

PERIODICAL:

Khimicheskaya promyshlennost', 1959, Nr 2, pp 169-174 (USSR)

ABSTRACT:

No constructional and individual data are available on the
contact-plates devised by V. Kittel (Ref 1) which operate
according to the principle of the utilization of kinetic
energy of the rising light phase for a more intense mixing.
In the present case contact-plates were constructed by
employing the same principle. The plates were made of
0.5 mm steel plates with a certain arrangement of elliptic
openings (Figs 1, 2). The total surface of the openings
is 27% of the surface of the plate. Two types of plates
were produced which are used in pairs. In one plate the
liquid flows from the middle to the periphery, in the second

Card 1/2

Investigations of the Resistance and Efficiency of a SCV/64-59-2-15/23
Contact-plate Utilizing the Kinetic Energy of the Light Phase

it flows reversely. Two pairs of plates were tested on a test plant (Fig 3). Oxygen was desorbed from water (at an air current velocity of 1710-5000 kg/m²/hour, wetting density of 18800-40300 kg/m²/hour, and water temperature of 10°) and carbon dioxide from water (1855-4950 kg/m²/hour, 25500-42250 kg/m²/hour and 11°). The resistance of the plates described is lower by 2-3 times than that of perforated or bubble plates. The optimum velocity of the gas flow (at the above-mentioned wetting densities) is 0.9-1.0 m/sec. Under the afore-mentioned conditions a value $E_{ML} = 0.82-0.88$ for the degree of efficiency according to Merfri with respect to the change in the liquid composition was found. Compared to the perforated and bubble plates the efficiency of the contact-plates described is higher, the resistance is lower and the degree of efficiency under optimum condition is equal. There are 9 figures and 13 references. 3 of which are Soviet.

Card 2/2

14(1)

SCV/67-59-3-16/27

AUTHOR: Petrovskiy, Yu. V., Candidate of Technical Sciences

TITLE: Air Separating Apparatus for the Production of Oxygen With Increased Pressure (Vozdukhorazdelitel'naya ustanovka dlya polucheniya kisloroda pod povyshennym davleniyem)

PERIODICAL: Kislород, 1959, Nr 3, pp 49 - 50 (USSR)

ABSTRACT: Under this title the British patent Nr 784590 "Improvements in or Relating to the Cold Separation of Air" by P.M. Schuftan, and A. D. Littlewood is briefly dealt with by the abstractor mentioned above as the author. There is 1 figure.

Card 1/1

5(1)
AUTHOR: Petrovskiy, Yu. V., Candidate of Technical Sciences SOV/67-59-4-17/19
TITLE: Foreign Patents
PERIODICAL: Kislород, 1959, Nr 4, p 52 (USSR)
ABSTRACT: This is an abstract from the French patent Nr 1139087 concerning the purification of noble gases of oxygen by means of iron oxide. There is 1 figure.

Card 1/1

14 (1)

AUTHOR:

Petrovski, Yu. V., Candidate of
Technical Sciences

SOV, 67-5917-16

TITLE:

- 1) New Fields of Application for Products of Air Fractionating
- 2) Solders for Low-temperature Service

PERIODICAL:

Kislodod, 1959, Nr 6, p 64 (USSR)

ABSTRACT:

ad 1): A brief report is given on the article by D. Farin
"Cryogenics" ¹ "Big Market for Aluminium" from Modern Metals, ✓
1958, Vol 14, Nr 7, pp 54 - 58 and 60 - 61 concerning indi-
vidual fields of application of air fractionating products
in the USA. ad 2): A brief report is given on the article by
A. B. Kaufmann "Selecting Solders for Low-Temperature Service"
from Materials in Design Engineering 1958, Vol 48, Nr 6,
pp 114-115 with respect to some solders which may be used for
low-temperature service.

Card 1/1

FASTOVSKIY, V.G., doktor tekhn.nauk; PETROVSKIY, Yu.V., kand.tekhn.
nauk

Heat transfer and resistance to air flow in a package of sheets
with semispherical projections [with summary in English].
Teploenergetika 6 no.1:65-68 Ja '59. (MIRA 12:1)

1. Vsesoyuznyy elektrotekhnicheskii institut.
(Heat exchangers--Aerodynamics)

PETROVSKIY, Yu. V. kand. tekhn. nauk

Air separation apparatus with a dephlegmator. Kislород 12 no. 1:45-46
'59. (MIRA 12:6)

(Liquid air) (Oxygen)

PETROVSKIY, Yu.V., kand. tekhn. nauk

Air separation apparatus with an additional nitrogen cycle.
Kislород 12 no.1:46-47 '59. (MIRA 12:6)
(Liquid air) (Oxygen) (Nitrogen)

PETROVSKIY, Yu.V., kand. tekhn. nauk

Oxygen apparatus with deep freezing of a part of the air before
its compression. Kislород 12 no.1:47-48 '59. (MIRA 12:6)
(Liquid air) (Oxygen)

PETROVSKIY, Yu.V., kand. tekhn. nauk

Improving the effectiveness of apparatus for the low temperature separation of gas mixtures by the deep-freeze methods (from "Trans. Instn. Chem. Engrs," 36, No. 3, 1958). Kislord 12 no. 1:51 '59. (MIRA 12:6)

(Liquid air)

AUTHOR: Petrovskiy, Yu. V., Candidate of Technical Sciences SOV/67-59-2-15, 18

TITLE: Foreign patents (Inostrannyye patenty).
(1) Air-fractionating Apparatus (Vozdukhоразделител'ная установка). (2) Container for Liquefied Gases (Rezervuar dlya szhizhennykh gazov)

PERIODICAL: Kislород, 1959, ^LNr 2, p 53 (USSR)

ABSTRACT: This short abstract deals with the two British patents Nr 786296/(1) (Improvements in or Relating to Low-temperature Separation of Air, Schuftan, F. M., November 13, 1957) and Nr 796450/(2) (Apparatus for the Storage of Liquefied Gases, Monroe, A. G., June 11, 1958). There are 2 figures.

Card 1/1

PETROVSKIY, Yu.V., kand. tekhn. nauk

Storage vessels for liquefied gases. (British patent No.801328).

Kislorod 12 no.5:57 '59.

(MIRA 13:2)

(Great Britain--Liquefied gases)

69204

S/096/60/000/06/015/025
E194/E284

24,5200

AUTHORS: Fastovskiy, V. G., Doctor of Technical Sciences and
Petrovskiy, Yu. V., Candidate of Technical Sciences

TITLE: Heat Transfer and Resistance of Bundles of Tubes with
Continuous Spiral Ribbing in Square Arrangement

PERIODICAL: Teploenergetika, 1960, Nr 6, pp 69-72 (USSR)

ABSTRACT: Since the manufacture of tubes with continuous spiral
ribbing was developed by TsNIITMASH they have come to
be used in heat exchangers. A study was made of the
heat transfer and resistance of bundles of aluminium
and copper tubes in square arrangement using the
experimental equipment and procedure described in an
article by the same authors in Teploenergetika, 1959,
Nr 1. In the tests steam was passed through the tubes
and air blown over the outside. The main cooler design
data and experimental results are tabulated and the
empirical formula (1) is recommended to represent the
experimental results. The aluminium tubes gave a 10%
higher heat transfer coefficient than the copper tubes
apparently because they were more freely spaced in the
bundle and the relative height of ribbing is less. The

Card 1/2

004/01, 1981, 1982
B110.8101

AUTHORS: Petrovskiy, Yu. V., Pastovskiy, V. G., Rozen, I. I.
TITLE: Use of finned pipes in crosscurrent exchangers with spirals
PERIODICAL: Khimicheskaya promyshlennost', no. 9, 1981, 95 - 97

TEXT: The present paper deals with heat exchange, hydraulic resistance and efficiency of finned pipes in heat exchangers used for air fractionation. The authors used tempered copper pipes, 8 - 10 mm in diameter, with transverse fins arranged in spirals, which were obtained by plastic deformation by means of rolling. Rolling rate: 10 - 15 mm; pipe length: 20 m; inside diameter d_i : 4.7 mm; diameter of fin basis d_b : 10.7 mm; outside fin diameter: $D = 10.7$ mm; mean fin thickness: $\delta = 0.45$ mm; fin height: $h = 2.3$ mm; number of fins per meter: 62; fin spacing: $t = 1.5$ mm; specific external pipe surface: $F = 0.0965$ m²/m; coefficient for calculating the surface of the finned pipe: $\phi = F/F_{(sm.p.)}$; $F_{(sm.p.)}$ - specific surface of smooth pipe, diameter = 6.1 mm; weight of pipe $W = 0.215$ kg/m. The tempered pipe can be wound round a $d_b = 10.7$ mm.
Card 1/5

Use of finned pipes in

S/004/01/100
B110/B101

diameter core and serves for high-pressure heat exchangers (1000 kg/cm²) (admissible internal excess pressure = 400 kg/cm²). The pipes are wound round a brass pipe core (1) (Fig. 2) with an outside diameter of 100 mm, in four layers without space linings. The sense of winding alternated. Number of turns in the direction of the air current: 10 per layer; interstice ≈ 11.7 mm; space between fin edges: 0.5 mm. They are covered with felt (3) and coated with a 1 mm Cu foil (4). Four π -shaped surfaces provide good air distribution. The heat exchanger is 10 mm long, its outside diameter is 19 mm. The total length of pipes is 45.1 m, the external surface is 4.16 m². A high-pressure fan (1) (Fig. 2) and an electric heater (2) are used for pumping air into the heat exchanger (3), from which cooled air is conducted through a pipe (4) (100 mm in diameter) with a diaphragm (5), a differential pressure gauge (6), and a simple water gauge (7) for measuring air consumption. A centrifugal pump (8) serves for pumping cold water through an intermediate vessel (8) into vessel (9), and warm water into measuring vessel (10). (11) and (12) are differential water gauges. (11) indicates the drop in pressure of the air passing through (3), (12) indicates the pressure difference between inlet and outlet pipes of (3). Inlet and outlet temperatures were measured by the copper-

Card 2/5